

Also Sprach Von Neumann

CHAPTER FIVE

by Eric Blodax

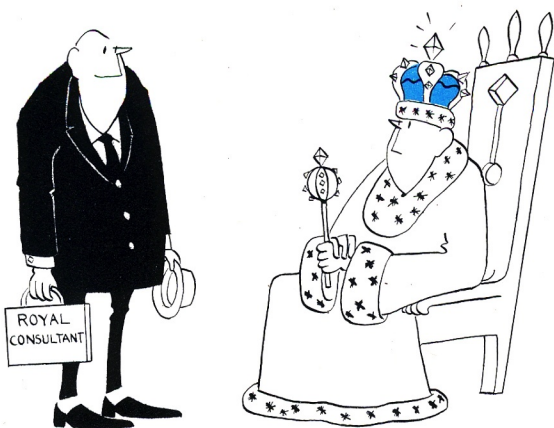
with illustrations

by Stew Burgess

G THE PRECEDING EVENTS: The author, beginning his career in computational sciences at the Airship Foundry, is drawn, through some celestial alchemy, to the vast and vertical hierarchy of the Intelligible Assurance Society. This call from Valhalla proves to be false. The author returns to the mundane and simple idiocy of the Airship Foundry to lurch forward in pioneermanship as one of the early day system builders. Having gotten a system actually to work, he is

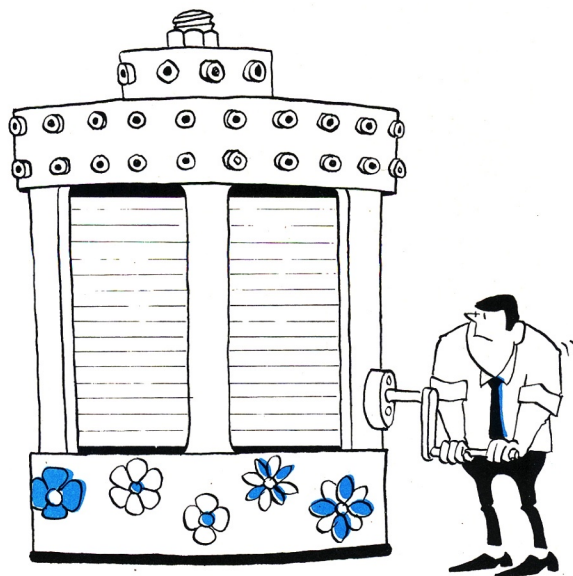
months of Saturdays at home, plus half of the Sundays and all of the holidays. Nine-thirty p.m. was an early hour at which to shut it down on any evening.

In spite of the apparent disorganization of our



called forth from the ranks to work on a gigantic proposal for a ballistic missile system.

The proposal effort for the Hammerhead missile was as well organized as most such things at the Airship Foundry. Six-hundred-eighty-seven disgruntled engineers were assigned to the proposal, and support, leadership, and unity of purpose were sometimes notable for their absence. There was no absence of ridiculous scheduling. I managed to miss six



effort, we came in with a winning proposal. The competition was more inept than we were. Along with most all hands who participated in the Hammerhead proposal, I was rewarded with an incentive bonus consisting of a bag of sunflower seeds and a pat on the head. I also had a new position on the Hammerhead missile project with an opportunity to work longer hours at no increase in pay.

This unnerved me sufficiently so that I began to lay

plans to launch into a new career. It seemed that anyone with the qualifications of a working system and a winning proposal behind him was surely qualified to be an independent consultant. This seemed to be a most desirable thing. Had I known then what I know now, I might not have thought so.

Summoning all my nerve, I wrote a series of letters to all the high-ranking people I could think of who had come to see the Stratobarn system work. The replies were mostly notable for their nonexistence. But a letter did come from Harley Corral, General Manager of the Computer Division of Ibex Corporation. He offered me a consulting contract with a minimum, covering a period of time. The moment had come. I was a free-lance consultant.

Ibex Corporation was a conglomerate before the word had been invented. They had the Light Bulb Division, the Indoor Plumbing Division, the Cannon Breech Division, the Farm Tractor Division, and many other divisions. The Computer Division, under Harley Corral, reported up through the senile Group Vice President, Electronic Technology, who also had radios, circuit breakers, dry batteries, and Crookes tubes. This Group V.P. continually gave Harley fits of ulcers by his view of the Computer Division as "a bunch of upstarts."

Harley himself had come out of the dry battery operation, and had, in fact, once written a thesis on battery design, but he was so harrassed, though an otherwise competent manager, that he had no time to learn much about digital computers, and was, as a result, highly susceptible to a well-planned bum steer.

Ibex sold a lovely, rugged, and slow drum computer. They had built a modest but tidy cross-section of users, and were doing somewhat well.

Through some series of corporate indecisions, a ukase had been issued calling upon the Computer Division to come forth with a next generation ma-

chine as a faster replacement for the drum box. The architecture of this new entry was somewhat ill-defined. Rumors out of the back room, which engineering tried hard to keep locked, indicated that there was something there looking suspiciously like a brontosaurus.

At that particular time, system software was the latest something every manufacturer had to supply (or thought he had to). Ibex Computer had no

experience with system software. All they had was Jack Blam in a cubby-hole corner office. He kept track of serial numbers of programs in the "users' library."

Ibex had set out to build a system software effort. The job obviously required someone of stature. But in Ibex, stature was synonymous with seniority, and seniority extended company-wide. Thus it was that Enoch Dewlap was called from the research laboratory of the Plastic Bag Division to head system software at Ibex Computer.

Enoch Dewlap had zero background in anything relating to programming. He also refused to look at anything done so far. He preferred to reinvent the world, doing it his way this time.

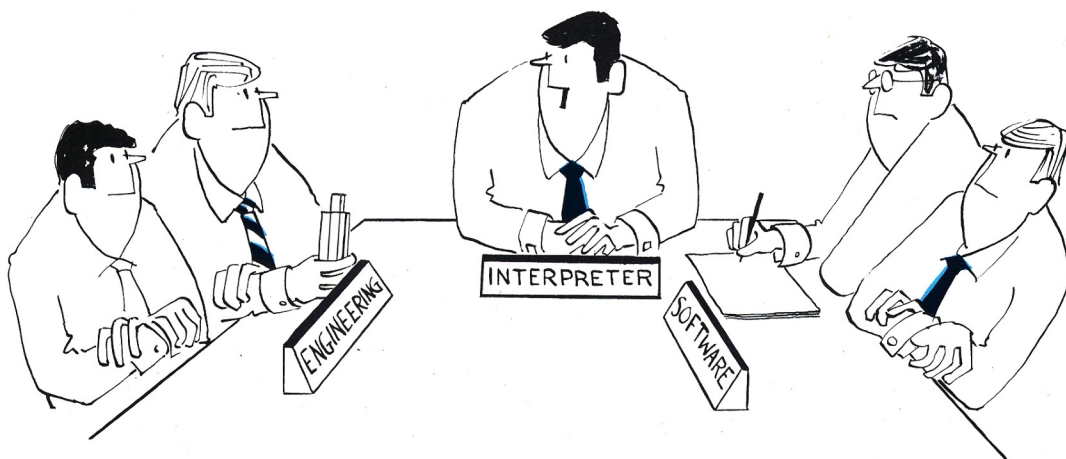
Harley Corral apparently had some suspicions that not all was going smoothly, for he gave me as a first assignment the liaison between software and engineering. Fred Moxie, the Chief Engineer of Ibex Computer, was a different sort than Enoch Dewlap. He was quiet, polite, and reticent. It took a bit of time to discover that, in Fred's engineering department, there was room for only one genius, and Fred himself filled that chair.

I launched into this first assignment with vigor, but met with almost immediate frustrations. Typical conversations with Enoch went like this:

"That sounds very elegant, Enoch, and surely very learned, but so far, to the best of my knowledge, programmers have not written source code exclusively in Greek alphabet notation."

"Then they've been making a stupid and ridiculous mistake which is probably indicative of the kind of clod who's been permitted to do this important work in the past."

Liaison meetings which I carefully set up between software and engineering (Enoch had so much seniority that software did not report to engineering)



were ghastly. Fred Moxie was apt to say only two words per hour, and these were said with an obvious sneer. Enoch Dewlap delivered a six-hour tirade in which he stated unequivocally that the new circuitry which programmers wrongly called "interrupt" should, of course, be called "interruption" by any literate person.

I reported to Harley Corral that all did not indeed seem well, but during the report he had a bad ulcer

twinge, and I am not sure he heard.

With little improvement in the software-engineering interface, Harley assigned me to sooth the marketing troops, or find out what was in their craw. Since the schedule had been continually slipping for months, and orders kept getting booked, slid and canceled, the whole market crew had a motto called "the hell with it." Those not out job hunting sat around and played bridge. Since I was a poor bridge player, I had a hard time establishing much rapport.

Harley's particular target of ulcerated venom was Ben Pewter. He headed the department, under marketing, which was supposed to produce the slick support literature, as opposed to the raunchy engineering specs. Since he was getting zero input from the technical troops, Ben Pewter had very little to do except revise drum computer manuals.

Harley kept calling me into his office.

"What does that son of a bitch do?" he would ask.

"Well, Sir, I . . ."

"I haven't seen that son of a bitch do anything for three months. Next week I think I'll can him. Do you think I ought to can him?"

"Well, I . . ."

"I ought to kick his ass out in the parking lot. Next week I think I'll do that."

About the week that Harley looked mean enough actually to carry out his threat, Ben Pewter resigned, solving one of Harley's problems. He became the new president of Checki-Ticki, a computerized credit rating service that enjoyed instant and outstanding success.

The world of Ibex Computer was so disturbing to me that I began to look about for a larger assortment of consulting contracts to take the place of what I believed must be the forthcoming Ibex disaster. Some of the operational and strategic problems of the consultant began to make themselves known to me.

A free-lance consultant, usually not having unlimited overhead, has his office in his home, possibly in a corner of what his wife believes is her sewing room. From this vantage point he must make all his phone calls. To book work he needs to call chief engineers, secretaries, general managers, vice presidents, and presidents. Many such people are not available at first, second or Nth call. Therefore the consultant must leave word, and trust that some of the pieces of cast bread will float back into the harbor.

As it frequently happens, when the president of General Motors, say, does actually return the call, consultant is indisposed. His six-year-old son takes the call and says something like:

"My Daddy is in the bathroom, and I can't write. Goodbye, man."

By the time the lightning struck Ibex Computer, I had negotiated a contract with Bloptex Industries. Meanwhile, Harley Corral resigned from Ibex, having found a much more suitable job which cured his ulcers. The Ibex Corporate hatchet man was assigned to manage the division, which he promptly sold at an exorbitant price to the Financial Mother Corporation.

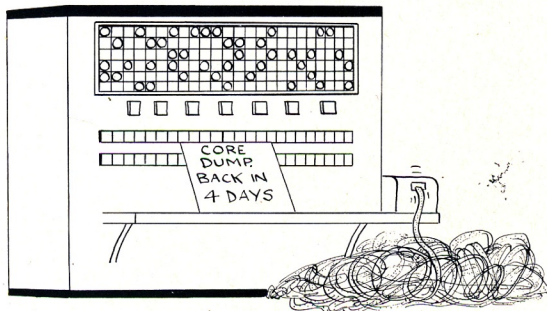
Bloptex Industries was a major contractor on the SATSCAN System. This was a way-out development in which a series of satellites in orbit squirted out data on command. The military ground installations col-

lected the information and computed the very kazoo out of it.

While Bloptex was prime computer and software contractor, the whole program was monitored for the military by the Research Laboratories of Abercrombie Institute, acting as System Manager. Like many "contractors" who do not spend their own money, Abercrombie Research Labs took a completely arbitrary and high-handed view of the whole project.

The Bloptex Computer was militarized, ruggedized, and homogenized. It was built in a cast-iron box and had a weird opcode set. In the SATSCAN system in which it resided, there was most restricted input and output consisting primarily of punched tape. This made things like assembly or memory dump take days rather than minutes.

Software for SATSCAN was late and error-ridden. Dr. Grinch, the Lab Director, was ominously threatening to cancel Bloptex on the software part of the contract. I got him to defer this decision till a more



appropriate time by finding an error in the math model which had been supplied by Abercrombie Labs.

Meanwhile, Bloptex Management agreed to put their first team on the problem. We set up a round-the-clock attack.

The satellites orbited over the Abercrombie Lab at odd hours. We stood by at one in the morning for a particular satellite pass. When it came over the horizon, we collected data for some fifteen minutes. Then we had to punch out a complete dump to insure that the reception had been properly done.

However, listing the raw record gave a most unintelligible listing. We had the Lab's large, commercial computer, a TINHAC II, standing by to reformat and list on its high-speed printer.

We started tape reading. At a half-mile or so of tape in, the TINHAC went down. We called the customer engineer.

At 4:30 in the morning, he got TINHAC back on the air. Once more the reading was begun. At about 17 feet into the punched tape, reading stopped with no apparent sign of trouble. We looked on in amazement and exasperation. The customer engineer shook his head. He started opening his tool kit and unlimbering his scope. Then someone noticed that John Steam, boy programmer extraordinary, was standing on the punched tape where we had conveniently dumped it on the floor to be read.

Not all consulting contracts involved tight schedules or near-disasters. My contract with the System Division of Pianissimo, Inc., came off quite well. The computer system which Pianissimo supplied to a

foreign government was required to pass a 24-hour acceptance test without glitch. The best it had done so far was five hours, and the foreign government was holding up a few million bucks in payments, which made Pianissimo very nervous indeed.

The software was supplied by the foreign government, and a careful examination indicated that there was an error in it. The record also indicated that there was no test procedure at Pianissimo, and no history of the abortive previous attempts to pass acceptance.

With the background of the Stratobarn system it was a simple matter to build a test procedure which Pianissimo could follow, defining the conditions of their attempts to pass the test. After the software error was corrected, there were two successive hard errors in test passing attempts, resulting in 12- and 17-hour runs successively.

Board changes took care of the hard error, and the third attempt produced a successful 24-hour run, all within three weeks after the concerted effort began.

I never succeeded in getting another consulting contract from Pianissimo.

One learned, in following the consulting route, that many contracts are not to do what may commonly be considered "real" things. Some clients want to buy an outside corroboration of their own ideas. This is, apparently, to convince their own management that they must be on sound ground, since someone outside the company concurs.

Other clients seek an outside hatchet man. They need someone not in the company on whom to pin the recommendation that Flub-up Freddie should, at last, be laid off, and that his department which has done nothing for ten years might be disbanded without harm to the corporate structure.

Still other clients want an outside opinion or study so that they can disregard it and do exactly what they had intended to do in the first place. This gets them off the hook of acting arbitrarily, or failing to pay any attention to other points of view.

There are other hazards that the consultant can learn to avoid. To every employee of any technological company, the world of the consultant looks like an endless green pasture. In the outsider's view, the consultant comes in occasionally, offers a few, high-level opinions, and sends an exorbitant bill which is paid in full within thirty microseconds. Such a person does not realize, apparently, that the consultant is apt to be his own sales force, accounting department, secretary, and overhead pool.

Phone calls from would-be joiners are one bane of the consultant. The friendly fellow who has met consultant on the job calls and indicates he would be willing to join up. He has no experience booking clients, and would, of course, need a steady 30K annual guarantee, but can start most any time.

Demands for free recruiting are another plague of the free-lance consultant. These fall into two categories. There is the fellow seeking an employee with particular characteristics, and he would be happy if consultant would keep it in mind, and, of course, not devote more than a week or so to the problem. The alter ego of the employee-seeker is the guy looking for a job who wants free referrals and touting service.

These people apparently have not heard that the world is full of employment agencies, executive search firms, and other similar people who are in the

business of recruiting—for a fee, of course. The statistics show clearly that such agencies are in ample proportion to the employable population, and that any one, picked at random, is apt to be equally incompetent when measured against any other.

Another source of travail to the consultant is the professional man in some foreign field, such as medicine or law. Such a person, usually being moderately wealthy from charging fees that consultant would consider sinful, has some kind of axe to grind, and some kind of small nest egg to invest.

"Let's rush ahead," Doctor, for instance, will say, "and set up an electronic board manufacturing plant in South Israel. The government will pay for 206% of the capital investment, the profits will be enormous, and I'll put up the rest of the capital."

It is useless to explain that Doctor doesn't know an electronic board from a busted stethoscope or a bent tushie. Nor can he find South Israel on the map. He has read something in the biweekly publication, "Hot Tips for the Investing Practitioner," and he is off on cloud nine, ruining consultant's evening with endless phone calls.

Another plague is the professional loser who has just skidded down the tubes for the seventeenth time. He has, let's say, just gone broke in consultant's neighborhood where he ran an incompetent taxicab service.

He calls on consultant, humbly:

"I have," he says, "a great idea for a new, electronic taxicab. All I need is a little backing . . ."

There is one rule that the consultant must carve in stone and learn to follow faithfully:

Free Advice Is Worth the Price!

Consulting can be a rewarding and interesting career, but it has built-in frustrations. The consultant



will do well to have an old dog that he can kick, or a stone wall in his yard to throw bottles at.

For the consultant, while he may have many things, has no authority. He can make nothing happen in his client companies. He can only suggest and attempt to persuade. He can reason, and argue, and view with alarm. He can draw up plans and studies, but he cannot order anything done. Such a world can bring feelings of frustration and impotence that are only partly dispelled by the cushioning effect of the received receivable, if the client should remember to pay.

The feeling of accomplishment earned in the occasional Pianissimo contract is, of course, the kind of thing that makes it all worthwhile.

(Chapter 6 will appear eventually.)